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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/760,230

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Kia Silverbrook

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07/05/2006

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393 DARLING STREET
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AUSTRALIA

EXAMINER

HSIEH, SHIH WEN

ART UNIT

PAPER NUMBER

2861

DATE MAILED: 07/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/760,230	Applicant(s) SILVERBROOK ET AL.	
	Examiner Shih-wen Hsieh	Art Unit 2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2006.
 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
 4a) Of the above claim(s) 7, 8, 11-16, 32, 37-39, 41-43, 46 and 49 is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-6, 9, 10, 17, 18, 20-31, 33-36, 40, 44, 45, 47 and 48 is/are rejected.
 7) ☒ Claim(s) 19 is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 21 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 10-12-04; 3-21-05.
 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) ☐ Notice of Informal Patent Application (PTO-152)
 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 7, 8, 11-16, 32, 37-39, 41-43, 46 and 49 (claims 37-39, 41-43 and 49 are canceled claims) are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on April 18, 2006.

Claim Objections

2. Claims 31, 45 and 48 are objected to because of the following informalities:

In regard to:

Claim 31:

Page 82, line 1, please change "adjacent to the slot" to 'adjacent to a slot" to correct a minor lack of antecedent problem.

Claim 45:

Line 4, please delete "a", such that the recitation will read "the reservoirs connected to the printhead by [a] an ink supply harness".

Claim 48:

Line 5, "in which is located" seems missing from this line, or the recitation in line 4 if nothing is missing will read: "a cabinet housing in which is located a media path which extends from the pilot guide", see claim 40, line 2, or claim 45, line 2.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 4, 5, 6, 9, 10, 17, 21-30 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liguori et al. (US Pat. No. 6,578,476).

In regard to:

Claim 1:

Liguori et al. teach:

A self contained printer for producing rolls of wallpaper, comprising:

a cabinet (20, fig. 1) in which is located a media path (the path assumed by web 24) which extends from a media cartridge loading area (26, fig. 1) to a winding area (28, fig. 1), refer to col. 3, lines 12-18 and lines 58-60;

a fullwidth digital color printhead (marked PRINTHEADS within enclosure 20, fig. 1) located in the media path, refer to col. 3, lines 12-18;

a processor (2, fig. 1) which accept operator inputs which are used to configured the printer for producing a particular roll, refer to col. 2, lines 31-67.

The device of Liguori et al. DIFFERS from claim 1, in that it does not teach:
the winding area are adapted to removably retain a core and wind onto it,
wallpaper produced by the printer.

Liguori et al. teach the roll 28 after image has been put onto it can be removed manually to another place for further treatment, refer to col. 3, lines 58-61.

Therefore it would have been an obvious matter that a core for receiving the already-printed web (24) to form a roll of 28 is removably provided in the winding area so as to allow one to take away the printed roll to another place.

The device of Liguori et al. further teaches after the images have been placed onto the web, the web is then send to an image transfer station (40, fig. 1) for transferring the images to another arcuate objects, and the structure of the web is as shown in fig. 3.

Art Unit: 2861

As far as the printing process is concern (i.e., from roll 26 through the printing area (20) to the roll 28), the process taught by Liguori et al. up to the roll 28 read on claim 1, and the web can be any kind of material, and does not have to be the same as the one shown in fig. 3.

Therefore it would have been an obvious matter that the printing process taught by Liguori et al. up to the roll 28 read on claim 1.

As to the wallpaper, since wallpaper is also produced by ink jet technology, and it is considered as the intended use of the ink jet printer, and thus carries less patentable weight.

Claim 4:

Liguori et al. further teach:

a slitting mechanism located between the print head and the winding area and adapted to longitudinally slit a media in accordance with instruction provided by the processor, refer to col. 6, lines 47-49.

Claim 5:

Liguori et al. further teach:

A bar code scanner (4, fig. 1) which communicates with the processor and through which operator preferences are input, refer to col. 2, lines 58-67.

Claim 6:

The device of Liguori et al. DIFFERS from claim 6 in that it does not teach:

a well, external to the cabinet and adjacent to an exit slot;

Art Unit: 2861

the well having at each end, spindles for aligning, retaining and removing a core, and for rotating the core according to instructions provided by the processor.

Liguori et al. teach the roll (28) is located outside the cabinet and at the exit side of the cabinet, a slot for exit the web (24) to form the roll (28) is obvious located at a proper place in the cabinet.

The difference between Liguori et al.'s roll (28) and this claim is the structure of the roll (28).

Actually, the structure such as a well and spindles are well known in the art, a very similar case for this kind of structure is, such as, a napkin roll commonly used in one's kitchen. Such a roll is on a wall mounted bracket, or a recess in the wall. The recess is curved inward so as to accommodate a roll. In either type, protrusions or spindles are disposed on opposite side of the bracket or the recess so as to allow mounting the napkin roll. In the example given above, the recess corresponds to the well in this claim, and the napkin corresponds to the web, refer to MPEP 2144.03, In re Malcolm, 129 F.2d 539, 54 USPQ 235 (CCPA 1942).

Therefore it would have been an obvious matter that the roll (28) in Liguori et al.'s invention must assume one type of mounting given above. And certainly, such mounting structure is a large version of the example given above.

Claim 9:

Liguori et al. further teach:

the media cartridge loading area further comprises a location for the media cartridge, in which a media cartridge dispensing slot is adjacent the path, refer to fig. 1

Art Unit: 2861

for the location of the media cartridge (26), and the dispensing slot, although not shown, is obviously facing the path where the web (24) can exit from the roll (26) and enters into the printing zone in the printer (20).

Claim 10:

Liguori et al. further teach a roll (26) in the loading area as shown in their fig. 1.

Claim 17:

Liguori et al. further teach:

the path comprises a generally straight path, see fig. 1 for straight path.

Claims 21-30:

In these claims, claims 21-23 are claims deal with wallpaper printing rate; claims 24-27 deal with number of nozzles in the print head; and claims 28-30 deal with volume of the ink droplet.

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to design a printing rate, selecting number of nozzles to perform printing, and design a driving method to form a certain size of ink droplet to have a definite volume, since it has been held that once an ink jet printer has been presented, then discovering an optimum value of a result effective variables, such as the printing rate, number of nozzles, ink droplet volume, etc., involves only routine skill in the art, refer to MPEP 2144.05 II B.

Claim 40:

A self contained printer as claimed in claim 1 further including:

Art Unit: 2861

a frame in which is located a media path which extends from a media loading area to a winding area;

a print head located across the media path;

one or more input devices for capturing operator instructions;

a processor which accepts operator inputs which are used to configure the printer for producing a particular toll; and

the winding area adapted to removably retain a core and wind onto it, wallpaper produced by the printer.

Rejection:

The recitations of this claim are similar to those in claim 1 and is rejected on the basis as set forth for claim 1 discussed above.

In this claim, the frame corresponds to the cabinet in claim 1; one or more input device are 4 and 6 in fig. 1 or from internet sites (see col. 2, lines 58-67).

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liguori et al. in view of Takahashi et al. (US Pat. No. 5,502,464).

The device of Liguori et al. DIFFERS from claim 2 in that it does not teach:

an internal dryer, the dryer located between the print head and the winding area and adapted to blow hot air onto a printed media web.

Takahashi et al. teach in their fig. 24 an ink jet printing system having print head (401) for printing images onto a recording medium (407), after image being placed onto

Art Unit: 2861

the medium, the medium is gone through a drying fixater (405), which blows hot air onto the medium carrying the images, refer to col. 20, lines 37-61.

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the device of Liguori et al. to include the drying fixater as taught by Takahashi et al. for the purpose of drying ink recorded on the recording medium. Note: in Takahashi et al.'s fig. 24, 416 corresponding to the cartridge loading area and 417 corresponding to the winding area of claim 1 respectively.

6. Claims 3, 33, 36, 44, 45 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liguori et al. in view of Wen (US Pat. No. 6,109,745).

In regard to:

Claim 3:

The device of Liguori et al. DIFFERS from claim 3 in that it does not teach:

a cutting mechanism located between the print head and the winding area and adapted to divide with a transverse cut, a media web in accordance with instructions provided by the processor.

Wen teaches in his fig. 1 an ink jet printing system having print bar (31, a print bar means full width print head) for ejecting ink onto a web (80) for producing image onto the web, a cutter (120) controlled by the control electronics (25) is provided in the printing path, refer to col. 2, lines 21-67.

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the device of Liguori et al. to include a cutter as taught by Wen for the purpose of cutting the web to size.

Claim 33:

The device of Liguori et al. DIFFERS from claim 33 in that it does not teach:

a transverse cutter, comprises :

a chassis having end plates ;

the end plate being supported to allow a web of media to pass between them;

the end plates supporting between them a cutting blade; and

the blade supported at each end to perform a cutting motion which begins on one side of the web and finishes on an opposite of the web.

In reference to fig. 2 of Wen, the cutter (120) is cutting the medium (80) transversely. Next, a cutter must be supported in some way by such as a bracket, and the cutting edge of the blade is slanted such as the one used in a guillotine so that when the cutter falls downward toward the recording medium, one end of the medium is cut first by the tip of the slanted edge of the blade, and as the blade goes further downwardly, the remaining portion of the slanted edge of the blade contacts with the medium and cut it gradually until the whole blade goes down to completely sever the medium. Therefore, the cutting by this type of slanted cutting edge is started at a first end of the medium and then cuts the medium gradually toward the other end as the cutter goes further downwardly.

Claim 36:

Art Unit: 2861

The length and design of the roll are determined by the operator inputs

Rejection:

Liguori et al. teach the designs are inputted by the user, see rejection to claim 1.

Wen teaches the recording medium is cut to a desired size through the control of the control electronics (25).

Therefore, the device of Liguori et al. as modified in view of Wen (see claim 3) teaches claim 36.

Claim 44:

Wen teaches a number of inks (41, 42, 43 and 44, fig. 1).

Therefore the device of Liguori et al. as modified in view of Wen teach a number of ink supplies for the purpose of producing color images.

Claim 45:

A self contained printer as claimed in claim1 further comprising:

a housing in which is located a media path which extends from a blank media intake to a wallpaper exit slot;

a multi-color roll width removable print head located in the housing and across the media path;

the print head being supplied by separate ink reservoirs, the reservoirs connected to the print head by an ink supply harness, there being a disconnect coupling between the reservoirs and the print head;

one or more input devices for capturing operator instructions;

a processor which accepts operator inputs which are used to configured the printer for producing a particular roll.

Rejection:

The recitations of this claim are similar to those recited in claims 1 and 40, and is rejected on the basis as set forth for claims 1 and 40 discussed above.

In this claim, the housing corresponds to the cabinet in claim 1 or the frame in claim 40; ink reservoirs are taught by Wen, the ink supply harness taught by Wen is just shown by a line, and actually any prior art ink supply harness can be the harness represented by this line, separated ink tubes are the most common type used in prior art; couplings between the ink reservoirs and the print head are obviously there in the body of the print head, such that ink tube can be connected to or disconnected from the head.

Claim 47:

A self contained printer as claimed in claim 1 wherein the print head is removable print head assembly, comprising:

a full width stationary print head located on a rail along which it slides for service and removal;

a number of replaceable ink reservoirs which supply the print head with different inks;

the print head comprises a color print head which is at least as wide as the web; and the print head being supplied with the different inks through tubes wuch can be disconnected so the print head can be removed.

Art Unit: 2861

Rejection:

The recitations of this claim are similar to those in claims 1, 40 and 45 and is rejected on the basis as set forth for claims 1, 40 and 45 discussed above.

A full width stationary print head located on a rail along which it slides for service and removal is a well known feature in ink jet printer art, refer to MPEP 2144.03, In re Malcolm, 129 F.2d 529, 54 USPQ 235 (CCPA 1942).

As to replaceable ink reservoirs, either Liguori et al. or Wen teach such reservoirs.

As to the width of the head, which is as wide as the width of the web, Liguori et al. print head can be this type, although not specifically mentioned in their invention. However, the print head in Wen's invention is a print bar, which has a width as wide as the width of the web (see Wen's fig. 3).

7. Claims 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liguori et al. in view of Rezanka et al. (US Pat. No. 5,570,118).

The device of Liguori et al. DIFFERS from claim 18 in that it does not teach:
a pre-heated platen located under the path and before the print head.

Rezanka et al. teach in their fig. 1 a heating device such as infrared lamp (210) or a heated platen is disposed before a full width print head (202), refer to col. 6, lines 15-24.

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the device of Liguori et al. to include a

Art Unit: 2861

heated platen as taught by Rezanka et al. for the purpose of increasing the evaporation rate of the printing media S.

8. Claims 20, 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liguori et al. in view of Tsuchihashi et al. (US Pat. No. 5,980,675).

In regard to:

Claim 20:

Liguori et al. teach the slitting is selectable (see col. 6, lines 47-49). However, Liguori et al. fail to teach the detail of the slitting mechanism.

Therefore the device of Liguori et al. DIFFERS from claim 20 in that it does not teach:

the slitting mechanism further comprises a pair of rotating end plates between which extends a number of transverse shafts, each shaft having one or more cutting disks, the end plates rotatable so that any shaft can be selected, or that no shaft be selected for cutting the media web.

Tsuchihashi et al. teach in their fig. 3 a slit-forming means (17), which read on the instant application, refer to col. 3, lines 1-10.

Therefore it would have been an obvious matter to introduce a detail of the slitting mechanism as taught by Tsuchihashi et al. for the purpose of allowing one to be more understandable as to how a slitting mechanism is being operated.

Claim 34:

The recitation of this claim is similar to that in claim 20, and is rejected on the basis as set forth for claim 20 discussed above.

Claim 35:

The device of Liguori et al. DIFFERS from claim 35 in that it does not teach:

a dryer comprising:

a compartment with a top opening for receiving a media web fed from a printer;

a source of heated air located above the top opening for blowing heated air into the opening to dry printing on the media web.

Tsuchihashi et al. teach a dryer (16, fig. 1) for drying an adhesive (C, fig. 1) adhere to a web, refer to col. 2, line 53 to col. 3, line 4. In tsuchihashi et al.'s case, the adhesive corresponds to the ink ejected by an ink jet printer, and the drying of the adhesive by a dryer corresponds to the drying of ink by the same dryer. Therefore, the teaching from Tsuchihashi et al. is the drying process (by a dryer). One can find out the dryer (16) has a top opening and the media passes through the opening. The heated source is a general notation without further specifying its type.

Therefore it would have been an obvious matter that the type of dryer employed by Tsuchihashi et al. can also employed in the instant application to render its drying function to the ink image produced in the recording medium, or the web.

9. Claims 31 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liguori et al. in view of Matsumoto et al. (US Pat. No. 6,523,948 B2).

In regard to:

Claim 31:

The device of Liguori et al. DIFFERS from claim 31 in that it does not teach:

a case in which a roll of blank of media may be employed;

the case having two halves, hinged together, an area between the two halves, when closed, defining a media supply slot; and

the case having internally and adjacent the slot, a pair of rollers, at least one of the rollers being a driven roller which is supported at each end, by the case, for rotation by an external motor.

Matsumoto et al. teach in their fig. 1 an ink jet printing system having a recording material magazine (15) with a roll of printing medium (17) disposed inside of the magazine, the magazine has a roller (16) in contacting with the roll, so when the roller is rotating (by an outside means, such as a motor, although not mentioned in their invention, however, a motor is a possible candidate), the recording material (17) is fed through the slot to an image forming portion (11), refer to col. 4, lines 48-55.

Matsumoto et al.'s invention has two places that are different with those in the instant application:

1) Matsumoto et al. have only one roller (16) placed internally adjacent to the slot.

However, since the only roller (16) is in contacting with the roll of recording material, the combination of the roller and the roll of recording material is functioning equivalent to two rollers in the instant application. The principle of feeding a recording material in one fashion, is using two rollers to squeeze the medium in between them,

Art Unit: 2861

and with a rotation of one of the roller, the medium squeezed in between them is therefore being advanced toward a printing station. Therefore, the structure shown in Matsumoto et al.'s fig. 1 is functionally equivalent to the instant application with less roller being used.

2) Matsumoto et al. do not disclose a detail of the magazine, such as it is consisted of two halves and hinged together.

As a commonsense, one wants to load a roll of recording material into the magazine (15), then the magazine must be an openable device, or an access must be provided somewhere in the magazine so as to let the one load the roll into the magazine through the access. In that sense, the access can be formed by opening a hinged cover, such as commonly seen a tool box. Based on the discussion above, a detail of the Matsumoto et al.'s magazine can be just a box, with a hinged cover, and the picture shown in Matsumoto et al.'s fig. 1 is the cover closed condition.

Claim 48:

A self contained printer as claimed in claim 1 wherein the printer is threading and further comprising:

a media loading area adapted to support a media cartridge in a position so that a media supply slot of the cartridge is closely adjacent to a pilot guide;

a cabinet housing a media path which extends from the pilot guide to a printed media dispensing slot;

a print head located across the media path;

a processor which accepts operator inputs which are used to configure the printer for producing a particular roll;

a motor within the cabinet for advancing a media web out of the media cartridge;
and

one or more other motors adapted to urge the media along the path and out of the slot.

Rejection:

The recitations of this claim are similar to those in claims 1 and 40, and is rejected on the basis as set forth for claims 1 and 40 discussed above.

As to the pilot guide, this is a plate located in a media transferring path to support a media so as to receive the media fed by such as the roll in magazine 15 of Matsumoto et al.'s invention. The purpose of the guide is to guide the media in a proper shape (such as no slack) and also directing the media to a proper place, such as a pair of transfer rollers, refer to MPEP 2144.03, In re Malcolm, 129 F.2d 529, 54 USPQ 235 (CCPA 1942).

As to a motor within the cabinet, Matsumoto et al.'s rotating roller (16) is powered obviously by a motor although not explicitly mentioned in their invention. Other motor(s), such as the one (19, fig. 1) taught by Matsumoto et al.

Allowable Subject Matter

10. Claim 19 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter:


The primary reason for the allowance of claim 19 is the inclusion of the limitation of the door being movable from a closed position which covers the opening, to an open position in which the media passes through the opening into the lower compartment and out of the compartment, also through the opening. It is this limitation found in this claim, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this claim allowable over the prior art.


12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shih-wen Hsieh whose telephone number is 571-272-2256. The examiner can normally be reached on 7:30AM -5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, V.Patel can be reached on 571-272-2458. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2861

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


SHIH-WEN HSIEH
PRIMARY EXAMINER
Shih-wen Hsieh
Primary Examiner
Art Unit 2861

SWH

June 28, 2006